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SEAGATE TECHNOLOGY LLC
c/o MCDERMOTT WILL & EMERY LLP
600 13TH STREET, NW
WASHINGTON, DC 20005-3096

EXAMINER	
MALONE, STEVEN J	

ART UNIT	PAPER NUMBER
4127	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/720,698	STOCKWELL ET AL.	
	Examiner	Art Unit	
	Steven J. Malone	4127	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 November 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *25 November 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This communication is a first Office Action Non-Final rejection on the merits. Claims 1-20, as originally filed, are currently pending and have been considered below.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1 at line 6, it is unclear whether the limitation "the location" is referring to a customer "location" as claimed in line 1 or to a prioritized "location" as claimed in line 4 or to an entirely different location (such as a second location). For purposes of examination, it is assumed to state "the customer location".

In claim 1 at lines 6 and 7, it is unclear whether the limitation "the locations" is referring to customer "locations" as claimed in line 1 or to prioritized "locations" as claimed in line 4 or to an entirely different set of locations (such as second locations). For purposes of examination, it is assumed to state "the customer locations".

Claim 1 recites the limitation "the current highest priority" at line 5. There is insufficient antecedent basis for this limitation in the claim.

Claim 1 recites the limitation "the priorities" at line 6. There is insufficient antecedent basis for this limitation in the claim.

In claim 3 at line 1, it is unclear whether the limitation "each location" is referring to "prioritized locations" as in claim 1 at line 4 or to "customer locations" as in claim 1 at line 1. For purposes of examination, it is assumed to state "customer location".

Claim 12 recites the limitation "the source" at line 2. There is insufficient antecedent basis for this limitation in the claim.

In claim 16 at lines 1 and 2, the limitation "all supply demand scenarios with all possible combinations" is indefinite because of its unclear bounds making it impossible to search prior art.

In claim 16 at line 4, it is unclear whether the limitation "a shipment plan" is referring to "a shipment plan" as in claim 1 at line 5 or to an entirely different shipment plan (such as a second shipment plan). For purposes of examination, it is assumed to state, "forming a part of said shipment plan".

Claims 2-16 are indefinite because they depend on claim 1 which is indefinite.

Claim 17 recites the limitation "the priorities" at line 10. There is insufficient antecedent basis for this limitation in the claim.

Claim 18 recites the limitation "the media" at line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim 19 recites the limitation "the media" at line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim 19 recites the limitation "the source" at line 2. There is insufficient antecedent basis for this limitation in the claim.

Claims 18 and 19 are indefinite because they depend on claim 17 which is indefinite.

In claim 20 at line 2, it is unclear whether the phrase "to customer locations" is referring to "to customer locations" claimed in line 1 or to an entirely different set of customer locations (such as second "customer locations"). For purposes of examination, it is assumed to state "to said customer locations".

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-3, 17, and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Crampton et al. (2003/0149631).

As per claims 1 and 17, Crampton et al. teaches a computer-implemented method for distributing parts to customer locations in a volume-based fair share mode, comprising the steps:

prioritizing requests for parts from inventory (See [0118] at lines 1-3, via processing highest priority orders first);

prioritizing locations that have need for the parts (See [0019] at lines 4-8, via determining available resources for the highest priority location); and

forming a shipment plan by iteratively assigning a defined minimum size allotment of the parts to the location having the current highest priority (See Figure 4, via iteratively assigning materials to prioritized locations based on part allotment including recursive steps 404 through 428); and

re-assigning the priorities of the locations until all of the parts from inventory have been assigned or no location needs more of the parts assigned (See [0351] at lines 15-19, via step 428 determining if there is any more unscheduled orders and if so returning to step 402).

As per claim 2, Crampton et al. teaches a method further comprising defining the minimum size allotment (See [0103] at lines 30-35, via the minimum quantity used to define a planning attribute in an order planning system).

As per claim 3, Crampton et al. teaches a method wherein each location having a need for the parts from inventory has a percentage need for said parts, and the step of forming a shipment plan includes assigning the minimum size allotment to a highest priority location in each iteration and thereafter re-assigning the priorities such that each location having a need is driven to the same percentage need (See [0152] at lines 12-23, via the smooth constraint rule which is used to optimize inventory resources by collectively driving all of the resources to their maximum planning capacity).

As per claim 20, Crampton et al. teaches a system for determining distribution of goods to customer locations, comprising:

a processor that receives requests for parts to be delivered to customer locations (See Figure 17, via computer system 1700; also see [0352] via a computer, workstation, server, database, or any other device having a microprocessor); and

means for forming a shipment plan of the goods to the customer locations on a volume-based fair share basis (See the Abstract, via a system and method for planning the utilization of resources in order to meet demand as defined by ordered planning).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 4-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crampton et al. (2003/0149631) in view of Wojcik et al. (5,758,329).

As per claim 4, Crampton et al. discloses all elements of the claimed invention, but fails to explicitly disclose performing a pallet size pass on the shipment plan.

Wojcik et al. teaches a system for managing customer orders and method of implementation including performing a pallet size pass on the shipment plan (See col. 18 at lines 22-25, via determining whether a full pallet or a partial pallet are requested).

From the teaching of Wojcik et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the order planning of Crampton et al. to include the choice of shipping in full pallets or partial pallets as taught by Wojcik et al. in order to provide an efficient order management system.

As per claim 5, Crampton et al. discloses all elements of the claimed invention, but fails to explicitly disclose a pallet size pass based on a threshold quantity at which multiples of shippers are cut in full pallets.

Wojcik et al. teaches a system for managing customer orders and method of implementation including a pallet size pass based on a threshold quantity at which multiples of shippers are cut in full pallets (See Claim 13, via determining if loads (pallets) constitute full loads and determining if loads are acceptable i.e., meet a threshold quantity).

From the teaching of Wojcik et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the order planning of Crampton et al. to include setting a full pallet threshold as taught by Wojcik et al. in order to provide an efficient order management system.

As per claim 6, Crampton et al. discloses all elements of the claimed invention, but fails to explicitly disclose a pallet quantity that is a quantity of parts that constitutes a full pallet.

Wojcik et al. teaches a system for managing customer orders and method of implementation including a pallet quantity that is a quantity of parts that constitutes a full pallet (See col. 17 at lines 56-60, via orders that call for full pallets).

From the teaching of Wojcik et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the order planning of Crampton et al. to include a pallet quantity that is a quantity of parts that constitutes a full pallet as taught by Wojcik et al. in order to provide an efficient order management system.

As per claim 7, Crampton et al. discloses all elements of the claimed invention, but fails to explicitly disclose a shipper that passes through the pallet size pass that has a number of parts greater than the threshold quantity and equal to or less than the pallet quantity.

Wojcik et al. teaches a system for managing customer orders and method of implementation including a shipper that passes through the pallet size pass that has a number of parts greater than the threshold quantity and equal to or less than the pallet quantity (See col. 17 at lines 56-60, via orders that call for full pallets; when an order calls for a full pallet the threshold quantity is equal to the pallet quantity and the lowest shipping cost per item is achieved).

From the teaching of Wojcik et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the order planning of Crampton et al. to include a shipper that calls for a full pallet as taught by Wojcik et al. in order to provide an efficient ordering system.

As per claim 8, Crampton et al. discloses all elements of the claimed invention, but fails to explicitly disclose performing a volume based filter pass on the shipment plan.

Wojcik et al. teaches a system for managing customer orders and method of implementation including performing a volume based filter pass on the shipment plan. (See col. 17 at lines 56-60, via orders that call for full pallets; pallets can hold a certain volume).

From the teaching of Wojcik et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the order planning of Crampton et al. to include performing a volume based filter pass on the shipment plan as taught by Wojcik et al. in order to provide an efficient order management system.

As per claim 9, Crampton et al. discloses all elements of the claimed invention, but fails to explicitly disclose a based filter pass based on a minimum shipment quantity defining a smallest amount of parts for a specific location or part type.

Wojcik et al. teaches a system for managing customer orders and method of implementation including based filter pass based on a minimum shipment quantity defining a smallest amount of parts for a specific location or part type. (See col. 17 at lines 56-60, via orders that call for full pallets; when an order calls for a full pallet the threshold quantity is equal to the pallet quantity and the full pallet is the minimum shipment quantity).

From the teaching of Wojcik et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the order planning of Crampton et al. to include based filter pass based on a minimum shipment quantity defining a smallest amount of parts for a specific location or part type as taught by Wojcik et al. in order to provide an efficient ordering system.

As per claim 10, Crampton et al. discloses wherein the volume based filter pass is based on a percentage impact threshold that is a function of a recommended shipper and a target inventory for a specific location or part type (See [0152] at lines 8-12, via the percent constraint rule).

As per claim 11, Crampton et al. and discloses wherein the parts are shipped from a single source (See [0095], via resource 110 and/or 120 and/or 130, via each resource may be associated with one or more materials).

As per claim 12, Crampton et al. and discloses wherein the parts are shipped from multiple sources, and further comprising determining splitting the source of the parts to fulfill the requests for parts from the locations (See [0095], via resource 110 and/or 120 and/or 130, via each resource may be associated with one or more materials).

As per claim 13, Crampton et al. and discloses wherein the determining includes forming a balanced supply/demand (See Claim 58, via determining if demand can be fully supplied by inventory, manufacture, purchase and/or substitution).

As per claim 14, Crampton et al. discloses wherein the determining further includes geographic/local sales rules in which specified geographic and local sales shipments are prioritized over optimization of shipments (See [0019] at lines 4-8, via prioritizing locations as a first step in forming a shipment plan).

As per claim 15, Crampton et al. discloses wherein the determining further includes a business rule filtering in which specified business rules are prioritized over

optimization of shipments (See [0117] at lines 1-6, via orders that are sorted (filtered) and prioritized, higher priority orders getting first access to materials and capacity).

8. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Crampton et al. (2003/0149631) and Wojcik et al. (5,758,329) and in further view of Chappel (7,236,940).

As per claim 16, the combination of Crampton et al., Wojcik et al., discloses all elements of the claimed invention but fails to explicitly disclose creating a set of all supply demand scenarios with all possible combinations of fully providing available supply to a demand point in a matrix, and subsequently performing a sum of squares on the matrix, with the highest sum of squares forming a shipment plan.

Chappel teaches a method and system for accessing and planning business operations utilizing rule-based statistical modeling including creating a set of all supply demand scenarios with all possible combinations of fully providing available supply to a demand point in a matrix, and subsequently performing a sum of squares on the matrix, with the highest sum of squares forming a shipment plan (See col. 7 at lines 45-47, via a statistical business model calculating the sum-of-squares).

Therefore, it would have been obvious for a person having ordinary skill in the art at the time the invention was made to modify the combination of Crampton et al., Wojcik, to include old and well know methods of statistical modeling in order to calculate a deviation from a mean, the highest deviation representing the highest priority.

10. Claims 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crampton et al. (2003/0149631) in view of Benda et al. (6,937,992)

As per claim 18, Crampton et al. discloses all elements of the claims invention, but fails to explicitly disclose performing lot sizing optimization after the shipment plan is formed.

Benda et al. teaches a transport vehicle capacity maximization logistics system and method including performing lot sizing optimization after the shipment plan is formed (See col. 11 at lines 56-58, via optimization of pallets for each given SKU).

From the disclosure of Benda et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system and method for order based planning as taught by Crampton et al. to include optimizing shipments before they are delivered in order to decrease shipping costs.

As per claim 19, Crampton et al. discloses all elements of the claims invention, but fails to explicitly disclose splitting the source of the parts when there are multiple sources of the parts.

Benda et al. teaches a transport vehicle capacity maximization logistics system and method including splitting the source of the parts when there are multiple sources of the parts (See col. 14 at lines 12-14, via merchandise that is shipped from multiple sources being optimized at a cross-dock for shipment to the same distributor).

From the disclosure of Benda et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system and

method for orderbased planning as taught by Crampton et al. to include optimizing shipments before they are delivered in order to decrease shipping costs.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Scheer (7,212,976) teaches a method for selecting a fulfillment plan for moving an item within an integrated supply chain.

Yang et al. (2001/0034673) teaches an electronic marketplace providing service parts inventory planning and management.

Chappel (7,236,940) teaches method and system for assessing and planning business operations utilizing rule-based statistical modeling.

Onozaki (6,026,378) teaches a warehouse managing system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to STEVEN J. MALONE whose telephone number is (571)270-5107. The examiner can normally be reached on Monday-Thursday 7:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynda Jasmin can be reached on 571-270-3033. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SM

/Lynda Jasmin/

Supervisory Patent Examiner, Art Unit 4127